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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,885	03/22/2004	Takashi Izuta	P/1596-76	3872

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EXAMINER	
MOORE, KARLA A	

ART UNIT	PAPER NUMBER
1792	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/806,885	IZUTA, TAKASHI	
	Examiner	Art Unit	
	Karla Moore	1792	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 5-9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP Patent No. 08-067413 to Mitsuyoshi et al. in view of U.S. Patent No. 5,672,230 to Park et al. and Japanese Patent No. 10-247679A to Okuno et al.

3. Mitsuyoshi et al. disclose a substrate treating apparatus for performing a predetermined treatment of a plurality of substrates as immersed in a heated treated solution substantially as claimed and comprising: a substrate count acquiring device (9) for acquiring a count of said substrates to be treated and a treating tank device (4) for immersing said substrates in the heated treated solution for the processing.

4. However, Mitsuyoshi et al. fail to teach a controller comprising: storage device for storing beforehand a relationship between count of the substrates and processing time for immersion in the heated treating solution; or a processing time determining device for determining a processing time according to said substrate count of said substrates acquired by said substrate count acquiring device, by referencing to said relationship stored in said storage device; as well as the substrate count acquiring device.

5. Park et al. teach monitoring sensed processing variables during a treatment process and using a main computer/controller (i.e. to coordinate a substrate acquiring device, a storage device and processing time determining means) to display, store and process sensed data to thereby enable effective central management of the treatment process (abstract).

6. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a main computer acting as a storage device and processing time determining means in Mitsuyoshi et al. in order to display, store and process sensed data thereby enabling effective central management of a treatment process as taught by Park et al.

7. Examiner notes that the claimed invention teaches that the storage device and the process time determining means are part of a single controller/computer. .

8. Mitsuyoshi et al. and Park et al. fail explicitly teach the storage device capable of storing a plurality of predetermined ranges of substrate counts, such that a processing time for an entire one of said predetermined ranged of substrate counts corresponding to a predetermined immersion time for one of said counts in said predetermined range.

9. Okuno et al. teach providing a controller comprising a storage device having the capability of storing predetermined ranges of substrate counts, such that a processing time for an entire predetermine range of counts of said substrates corresponds to a predetermined processing time for one of said counts in said predetermined range (abstract). Further, it would have been clear to one of ordinary skill in the art that as the number of substrates increased, the processing time would need to progressively increase and if the number of substrates decreased the processing time would decrease. It would have been further obvious to one of ordinary skill to

store a plurality of the predetermined ranges in order to have a plurality of predetermined ranges to choose a processing time from in order to allow for accurate processing. It is noted that the courts have ruled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). In the instant case, by providing a plurality of predetermined ranges, a plurality of processes can by undertaken accurately and with ease. This is would be considered neither a new, nor an unexpected result by one of ordinary skill in the art exercising ordinary creativity, common sense and logic. It is also noted that the courts have ruled that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

10. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a controller comprising a storage device having the capability of storing predetermined ranges of substrate counts, such that a processing time for an entire predetermine range of counts of said substrates corresponds to a predetermined processing/immersion time for one of said counts in said predetermined range in Mitsuyoshi et al. and Park et al. in order to execute a processing treatment without deteriorating the qualities of substrates when the number of substrates processed in a single treatment may vary as taught by Okuno et al.

11. With respect to claims 6, the optical sensor of Mitsuyoshi et al. is a transmission type sensor.

12. With respect to claims 7 and 8, although Mitsuyoshi et al. do not explicitly teach using different types of sensors, one of ordinary skill in the art would recognize that any sensor capable of sensing the presence of wafers could be used for counting the wafers. The courts have ruled that an express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. In re Fout, 675 F.2d 297, 213 USPQ 532 (CCPA 1982).

13. With respect to claim 9, Mitsuyoshi et al. further comprises a container rest (Figure 1, 2) for receiving a container (Figure 1, C) storing said substrates to be treated, said substrate count acquiring device counts said substrates in said container placed on said rest.

14. With respect to claim 12, Mitsuyoshi et al. disclose a substrate loading robot (10). Further, with respect to the recitation of the claim drawn to the placement of the counting device, the courts have ruled that the mere rearrangement of parts which does not modify the operation of a device is prima facie obvious. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

15. With respect to claim 13, Park et al. teaches that data may be acquired from an external device (column 4, rows 15-18).

16. With respect to claim 14, the substrate count acquiring device in Park et al. is a computer which would be capable of acquiring key input from a control unit.

17. Claims 10-11 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsuyoshi et al., Park et al. and Okuno et al. as applied to claims 5-9 and 12-14 above, and further in view of U.S. Patent No. 5,431,179 to Miyazaki et al.

18. Mitsuyoshi et al., Park et al. and Okuno et al. disclose the invention substantially as claimed and as described above.

19. However, Mitsuyoshi et al., Park et al. and Okuno et al. fail to teach shutters for opening and closing partition acting as an atmospheric barrier between said container rest and a treating tank.

20. Miyazaki et al. teach using shutters for preventing vapor from leaking outside a process apparatus (column 5, rows 28-40).

21. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention to have provided shutters for opening and closing a partition acting as a barrier in said treating tank device in Mitsuyoshi et al., Park et al. and Okuno et al. in order to prevent vapor from leaking outside the process apparatus as taught by Miyazaki et al.

22. Further, with respect to these claims, which recite placing the counting device at various places in the apparatus, the courts have ruled that the mere rearrangement of parts which does not modify the operation of a device is prima facie obvious. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

23. With respect to claims 15-16, Miyazaki et al. provide a plurality of treatment sections sequentially arranged, for performing a series of treatment steps (column 3, rows 35-62). When

one process is over the substrates can be transferred to the next. Further, the processing fluid in each of the sections can be drained and replaced as needed (column 3, rows 62-66).

Response to Arguments

24. Applicant's arguments with respect to claims 5-16 have been considered but are moot in view of the new ground(s) of rejection.

25. Applicant has argued that the previously relied upon prior art fails to teach or fairly suggest the storage device capable of storing a plurality of predetermined ranges of substrate counts, such that a processing time for an entire one of said predetermined ranged of substrate counts corresponding to a predetermined immersion time for one of said counts in said predetermined range. Examiner disagrees and reasoning is provided in the rejection above as to why such a claimed feature is taught and/or fairly suggested by the relied upon prior art as encompassed by the pending apparatus claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KARLA MOORE
PRIMARY EXAMINER

18 January 2008